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09/964,506	09/28/2001	Hiromitsu Seto	K-2006	2573

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KANESAKA AND TAKEUCHI  
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EXAMINER

BOLDEN, ELIZABETH A

ART UNIT

PAPER NUMBER

1755

DATE MAILED: 08/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/964,506

Applicant(s)

SETO ET AL.

Examiner

Elizabeth A. Bolden

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 1755

### **DETAILED ACTION**

Any rejections and or objections, made in the previous Office Action, and not repeated below, are hereby withdrawn.

#### ***Claim Objections***

Claim 3 is objected to because of the following informalities: Typographical error

In line 2 of Claim 3 the word “ion” should be iron.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boulos et al., U.S. Patent 5,776,845 in view of Aratani et al., U.S. Patent 4,859,636.

Boulos et al. teach a green soda-lime-silica glass having overlapping ranges of components with instant claims 1-7 and 9-14. See abstract of Boulos et al. and column 4, lines 38-45. The reference teaches visible and UV light transmittance ranges that overlap the visible and UV light transmittance limitations in claims 1-7 and 9. Furthermore, Boulos et al. teach Examples 11-13, 17-19, and 25, which meet the glass compositional limitations of claim 3. See

Art Unit: 1755

Tables IV, V, and VI. The reference further discloses Examples 20-25, which meet the compositional limitations of claims 4 and 7. See Table VI.

Boulos et al. fail to teach a surface compressive stress layer, coefficient of thermal expansion, density, and Young's Modulus.

As to the compressive layer, Aratani et al. teach a float glass composition that has been strengthened and has a compressive stress surface layer. See column 5, lines 34-40 and column 7, lines 25-35.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a glass with a compressive stress layer of Boulos et al. as suggested by Aratani et al. because of the increased strength of the glass. See column 4, lines 39-48 of Aratani et al.

As to the coefficient of thermal expansion, density, and Young's modulus, one of ordinary skill in the art would expect that a glass with overlapping compositional ranges would have the same coefficient of thermal expansion, density, and Young's Modulus as recited in claims 10-14.

Claim 1 defines the product by how the product was made in that the claim recites that the glass has a compressive layer "without reinforcing process." Thus, claim 1 is product-by-process claims. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply a glass that has a surface compressive stress. The combination of references suggests such a product. See column 4, lines 38-45 of Aratani et al.

Art Unit: 1755

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagashima et al., U.S. Patent 6,046,122 in view of Aratani et al., U.S. Patent 4,859,636.

Nagashima et al. teach a green soda-lime-silica glass having overlapping ranges of components and overlapping ranges of visible, total solar, and UV light transmittance with instant claims 1-14. See abstract of Nagashima et al., column 3, lines 27-33, and column 4, lines 47-50. Furthermore, Nagashima et al. teach Examples 1-3, 5, 7, and 8, which meet the glass compositional limitations of claims 3-5 and 7. See Tables I. The reference further discloses Examples 4 and 6, which meet the compositional limitations of claims 3, 4, and 7. See Table I.

Nagashima et al. fail to teach a surface compressive stress layer, coefficient of thermal expansion, density, and Young's Modulus.

As to the compressive layer, Aratani et al. teach a float glass composition that has been strengthened and has a compressive stress surface layer. See column 5, lines 34-40 and column 7, lines 25-35.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a glass with a compressive stress layer of Nagashima et al. as suggested by Aratani et al. because of the increased strength of the glass. See column 4, lines 39-48 of Aratani et al.

As to the coefficient of thermal expansion, density, and Young's modulus, one of ordinary skill in the art would expect that a glass with overlapping compositional ranges would have the same coefficient of thermal expansion, density, and Young's Modulus as recited in claims 10-14.

Art Unit: 1755

Claim 1 defines the product by how the product was made in that the claim recites that the glass has a compressive layer “without reinforcing process.” Thus, claim 1 is product-by-process claims. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply a glass that has a surface compressive stress. The combination of references suggests such a product. See column 4, lines 38-45 of Aratani et al.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaguchi et al., U.S. Patent 5,776,846 in view of Aratani et al., U.S. Patent 4,859,636.

Sakaguchi et al. teach a green soda-lime-silica glass having overlapping ranges of components and overlapping ranges of visible, total solar, and UV light transmittance with instant claims 1-14. See abstract of Sakaguchi et al. and column 3, lines 18-22 and 26-33. Furthermore, Sakaguchi et al. teach Example 2, which meet the glass compositional limitations of claims 3, 4, and 7. See Table 1.

Sakaguchi et al. fail to teach a surface compressive stress layer, coefficient of thermal expansion, density, and Young’s Modulus.

As to the compressive layer, Aratani et al. teach a float glass composition that has been strengthened and has a compressive stress surface layer. See column 5, lines 34-40 and column 7, lines 25-35.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a glass with a compressive stress layer of Sakaguchi et al. as suggested by

Art Unit: 1755

Aratani et al. because of the increased strength of the glass. See column 4, lines 39-48 of Aratani et al.

As to the coefficient of thermal expansion, density, and Young's modulus, one of ordinary skill in the art would expect that a glass with overlapping compositional ranges would have the same coefficient of thermal expansion, density, and Young's Modulus as recited in claims 10-14.

Claim 1 defines the product by how the product was made in that the claim recites that the glass has a compressive layer "without reinforcing process." Thus, claim 1 is product-by-process claims. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply a glass that has a surface compressive stress. The combination of references suggests such a product. See column 4, lines 38-45 of Aratani et al.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagashima et al., U.S. Patent 5,858,896 in view of Aratani et al., U.S. Patent 4,859,636.

Nagashima et al. teach a green soda-lime-silica glass having overlapping ranges of components and overlapping ranges of visible, total solar, and UV light transmittance with instant claims 1-14. See abstract of Nagashima et al., column 2, lines 65-66, and column 3, lines 3-6. Furthermore, Nagashima et al. teach Examples 1-3 and comparative examples 1-3, which meet the glass compositional limitations of claims 3-5 and 7. See Tables 1 and 2.

Nagashima et al. fail to teach a surface compressive stress layer, coefficient of thermal expansion, density, and Young's Modulus.

Art Unit: 1755

As to the compressive layer, Aratani et al. teach a float glass composition that has been strengthened and has a compressive stress surface layer. See column 5, lines 34-40 and column 7, lines 25-35.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a glass with a compressive stress layer of Nagashima et al. as suggested by Aratani et al. because of the increased strength of the glass. See column 4, lines 39-48 of Aratani et al.

As to the coefficient of thermal expansion, density, and Young's modulus, one of ordinary skill in the art would expect that a glass with overlapping compositional ranges would have the same coefficient of thermal expansion, density, and Young's Modulus as recited in claims 10-14.

Claim 1 defines the product by how the product was made in that the claim recites that the glass has a compressive layer "without reinforcing process." Thus, claim 1 is product-by-process claims. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply a glass that has a surface compressive stress. The combination of references suggests such a product. See column 4, lines 38-45 of Aratani et al.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

The Examiner will address the arguments as they pertain to the new rejections.



Art Unit: 1755

Applicants' argue that the reference of Boulos et al., Nagashima et al. '122, Sakaguchi et al., and Nagashima et al., '896 do not disclose or teach the coefficient of expansion or the Young's modulus whereas the instant invention improves the coefficient of expansion and the Young's modulus.

These arguments surrounding the coefficient of expansion and the Young's modulus property are not deemed persuasive. MPEP 716.01(c) states:

The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). Examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration include statements regarding unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant.

One of ordinary skill in the art would expect that a glass with overlapping compositional ranges would have the same coefficient of thermal expansion and Young's Modulus as recited in the instant claims.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 1755

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Bolden whose telephone number is 703-305-0124. The examiner can normally be reached on 8:30am to 6:00 pm with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L. Bell can be reached on 703-308-3823. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

EAB  
20 August 2003

  
DAVID SAMPLE  
PRIMARY EXAMINER